

**AMENDMENTS TO THE CLAIMS**

This listing of the claims will replace all prior listings and versions of claims in the application.

1. – 133. (canceled)

134. (new) A composition comprising;

- a) an oil-in-water emulsion, comprising;
  - 1) a discontinuous oil phase;
  - 2) an aqueous phase;
  - 3) an alcohol;
  - 4) a surfactant;
  - 5) an organic phosphate based solvent, wherein said discontinuous oil phase, said aqueous phase, said alcohol, said surfactant, and said organic phosphate based solvent are combined under conditions such that said oil-in-water emulsion is itself antimicrobial; and
- b) a halogen-containing compound.

135. (new) The composition of Claim 134, wherein said oil phase comprises a plant oil.

136. (new) The composition of Claim 135, wherein said plant oil is selected from the group consisting of soybean oil, avocado oil, flaxseed oil, coconut oil, cottonseed oil, squalene oil, olive oil, canola oil, corn oil, rapeseed oil, safflower oil, and sunflower oil.

137. (new) The composition of Claim 134, wherein said oil phase comprises an oil selected from the group consisting of fish oil, flavor oil, water insoluble vitamins, and mineral oil.

138. (new) The composition of Claim 134, wherein said oil phase comprises

motor oil.

139. (new) The composition of Claim 134, wherein said oil phase comprises 30-90 vol% of the oil-in-water emulsion.

140. (new) The composition of Claim 134, wherein said oil phase comprises 50-80 vol% of the oil-in-water emulsion.

141. (new) The composition of Claim 134, wherein said aqueous phase comprises water.

142. (new) The composition of Claim 134, wherein said aqueous phase comprises phosphate buffered saline.

143. (new) The composition of Claim 134, wherein said alcohol comprises ethanol.

144. (new) The composition of Claim 134, wherein said surfactant comprises a polysorbate surfactant.

145. (new) The composition of Claim 134, wherein said surfactant comprises a pheoxypolyethoxyethanol.

146. (new) The composition of Claim 134, wherein said surfactant comprises sodium dodecyl sulfate.

147. (new) The composition of Claim 134, wherein said halogen-containing compound comprises cetylpyridinium chloride.

148. (new) The composition of Claim 134, wherein said halogen-containing compound is selected from the group consisting of cetylpyridinium halides, cetyltrimethylammonium halides, cetyldimethylethylammonium halides, cetyldimethylbenzylammonium halides, cetyltributylphosphonium halides, dodecyltrimethylammonium halides, tetradecyltrimethylammonium halides, cetyltrimethylammonium chloride, cetylbenzyltrimethylammonium chloride, cetylpyridinium bromide, cetyltrimethylammonium bromide,

cetyldimethylethylammonium bromide, cetyltributylphosphonium bromide, dodecyltrimethylammonium bromide, and tetradecyltrimethylammonium bromide.

149. (new) The composition of Claim 134, wherein said halogen-containing compound is a quaternary ammonium compound.

150. (new) The composition of Claim 134, wherein said emulsion further comprises a germination enhancer.

151. (new) The composition of Claim 134, wherein said organic phosphate based solvent comprises tributyl phosphate.

152. (new) The composition of Claim 134, wherein said emulsion further comprises a component selected from the group consisting of a neutramingen, L-alanine, ammonium chloride, trypticase soy broth, yeast extract, L-ascorbic acid, lecithin, p-hydroxybenzoic acid methyl ester, sodium thiosulfate, sodium citrate, inosine, sodium hydroxide, dextrose, and polyethylene glycol.

153. (new) The composition of Claim 134, wherein said alcohol comprises ethanol, and wherein said surfactant comprises a phoxypolyethoxyethanol.

154. (new) The composition of Claim 134, wherein said alcohol comprises ethanol, wherein said surfactant comprises a polysorbate surfactant, and wherein said halogen-containing compound comprises cetylpyridinium chloride.

155. (new) A method of making an oil-in-water emulsion comprising emulsifying a mixture, said mixture comprising:

- a) an oil-in-water emulsion, comprising;
  - 1) a discontinuous oil phase;
  - 2) an aqueous phase;
  - 3) an alcohol;
  - 4) a surfactant;
  - 5) an organic phosphate based solvent, wherein said discontinuous oil phase, said aqueous phase, said alcohol, said

surfactant, and said organic phosphate based solvent are combined under conditions such that said oil-in-water emulsion is itself antimicrobial; and

b) a halogen-containing compound.

156. (new) The method of Claim 155, wherein said oil is selected from the group consisting of soybean oil, avocado oil, flaxseed oil, coconut oil, cottonseed oil, squalene oil, olive oil, canola oil, corn oil, rapeseed oil, safflower oil, and sunflower oil.

157. (new) The method of Claim 155, wherein said oil is selected from the group consisting of fish oil, flavor oil, water insoluble vitamins, and mineral oil.

158. (new) The method of Claim 155, wherein said oil phase comprises motor oil.

159. (new) The method of Claim 155, wherein said alcohol comprises ethanol.

160. (new) The method of Claim 155, wherein said halogen-containing compound is selected from the group consisting of cetylpyridinium halides, cetyltrimethylammonium halides, cetyldimethylethylammonium halides, cetyldimethylbenzylammonium halides, cetyltributylphosphonium halides, dodecyltrimethylammonium halides, tetradecyltrimethylammonium halides, cetyltrimethylammonium chloride, cetylpyridinium chloride, cetylbenzyltrimethylammonium chloride, cetylpyridinium bromide, cetyltrimethylammonium bromide, cetyldimethylethylammonium bromide, cetyltributylphosphonium bromide, dodecyltrimethylammonium bromide, and tetradecyltrimethylammonium bromide.

161. (new) The method of Claim 155, wherein said mixture further comprises a germination enhancer.

162. (new) The method of Claim 155, wherein said mixture further comprises a component selected from the group consisting of a neutramingen, L-alanine, ammonium chloride, trypticase soy broth, yeast extract, L-ascorbic acid, lecithin, p-hydroxybenzoic acid methyl ester, sodium thiosulfate, sodium citrate, inosine, sodium

hydroxide, and polyethylene glycol.

163. (new) The method of Claim 155, wherein said alcohol comprises ethanol, and wherein said surfactant comprises a pheoxypolyethoxyethanol.

164. (new) The method of Claim 155, wherein said alcohol comprises ethanol, wherein said surfactant comprises a polysorbate surfactant, and wherein said halogen-containing compound comprises cetylpyridinium chloride.

165. (new) A method for protecting a surface of a human from pathogens, or decontaminating a surface of a human of pathogens, comprising exposing said surface of a human to a composition comprising:

a) an oil-in-water emulsion, comprising;

- 1) a discontinuous oil phase;
- 2) an aqueous phase;
- 3) an alcohol; and
- 4) a surfactant;

wherein said discontinuous oil phase, said aqueous phase, said alcohol, and said surfactant are combined under conditions such that said oil-in-water emulsion is itself antimicrobial; and

b) a halogen-containing compound,

166. (new) The method of Claim 165, wherein said surface of a human comprises an external surface of a human.

167. (new) The method of Claim 165, wherein said surface of a human comprises an internal portion of a human.

168. (new) The method of Claim 165, wherein said pathogens are selected from the group consisting of bacteria, spores, fungi, protozoa, viruses and subviral agents.

169. (new) The method of Claim 165, wherein said pathogens are selected from two or more of the group consisting of bacteria, spores, fungi, protozoa, viruses and

subviral agents.

170. (new) The method of Claim 165, wherein said pathogen is a *Herpes simplex I* virus.

171. (new) The method of Claim 165, wherein said oil-in-water emulsion further comprises a chelating agent.

172. (new) The method of Claim 171, wherein said chelating agent comprises EDTA.

173. (new) The method of Claim 165, wherein said oil phase comprises an oil selected from the group consisting of plant oil, animal oil, flavor oil, mineral oil and motor oil.

174. (new) The method of Claim 172, wherein said plant oil comprises soybean oil.

175. (new) The method of Claim 165, wherein said surfactant is selected from the group consisting of a polysorbate surfactant, a pheoxypolyethoxyethanol and sodium dodecyl sulfate.

176. (new) The method of claim 175, wherein said polysorbate surfactant comprises TWEEN 20.

177. (new) The method of Claim 165, wherein said alcohol comprises ethanol.

178. (new) The method of Claim 165, wherein said alcohol comprises glycerol.

179. (new) The method of Claim 165, wherein said halogen containing compound comprises cethylpyridinium chloride.

180. (new) The method of Claim 165, wherein said composition is formulated as a topical treatment.

181. (new) The method of Claim 180, wherein said topical treatment is formulated in a form selected from the group consisting of a cream, ointment, salve and spray.

182. (new) A system comprising a food product in contact with a composition comprising;

a) an oil-in-water emulsion, comprising;

1) a discontinuous oil phase;

2) an aqueous phase;

3) an alcohol; and

4) a surfactant;

wherein said discontinuous oil phase, said aqueous phase, said alcohol, and said surfactant are combined under conditions such that said oil-in-water emulsion is itself antimicrobial; and

b) a halogen-containing compound,

183. (new) A method for protecting a food product from pathogens, or decontaminating a food product of pathogens comprising exposing said food product to a composition comprising:

a) an oil-in-water emulsion, comprising;

1) a discontinuous oil phase;

2) an aqueous phase;

3) an alcohol; and

4) a surfactant;

wherein said discontinuous oil phase, said aqueous phase, said alcohol, and said surfactant are combined under conditions such that said oil-in-water emulsion is itself antimicrobial; and

b) a halogen-containing compound,

184. (new) The method of Claim 183, wherein said pathogens are selected from the group consisting of bacteria, spores, fungi, protozoa, viruses and subviral agents.

185. (new) The method of Claim 183, wherein said pathogens are selected from two or more of the group consisting of bacteria, spores, fungi, protozoa, viruses and subviral agents.